

# A View From The Top



Above: Philadelphia's Fairmount Water Works was heralded in the mid-19th Century as one of the most efficient and attractive municipal water supply systems both in the United States and abroad. To the left is the canal built by the City of Philadelphia for the Schuylkill Navigation Co. (The Fairmount Water Works, by Thomas Birch (1779-1851), oil on canvas, courtesy of the Pennsylvania Academy of Fine Arts, bequest of Charles Graff.) Below: George Lehman's 1842 watercolor depicts the eight arched openings through which the water exited the Water Works after driving the water wheels, and later the turbines. (Courtesy, CIGNA Museum and Art Collection)

When Charles Dickens sailed from England in 1842 to visit Philadelphia he toured the city's Fairmount Water Works on the banks of the Schuylkill River, describing it as a place . . . "wondrous to behold."

Eleven years later, Mark Twain, then a typesetter at the *Philadelphia Inquirer*, wrote about its splendor in a letter to his brother back in Hannibal, Missouri:

I saw immense water wheels . . . There was a long flight of stairs leading to the summit of the hill. But I forgot to say that at the foot of this hill a pretty white marble naiad stands on a projecting rock . . . A nice half-inch jet of water is thrown straight up ten or twelve feet and descends in a shower all over the fair water spirit . . . I can't say I saw nothing else either – for here I had a magnificent view of the city."

pipes to 63 homes, four breweries, and a sugar refinery.

Construction of the Fairmount Water Works, which housed the world's first high-pressure steam engine, began in 1812. The first water wheel went into operation in 1822, supplementing new steam driven pumps that forced the river water up into a reservoir on top of the bluff – the impoundment's earthen walls nearly as tall as the roof of the Philadelphia Museum of Art which rests there today.

Eight water (or breast) wheels were in operation by 1843 and the Water Works was now supplying 28,000 customers an average of 5.3 million gallons of water a day. The breast wheels would be replaced later by French-built turbines.

By the mid-19th Century, the Fairmount Water Works was being heralded as one of the most efficient and attractive municipal water supply systems both in the United States and abroad. Tourists flocked to the site to see the gazebos and fountains that were being added to the gardens surrounding the Federal and Greek revival-style buildings. A dock was built to berth passenger ships.

Pictures of the stately buildings and the Schuylkill River appeared in ads for ice skates, on firemen's hats, and on sheet music, poetry, and gilded vases.

Eventually fresh technology would signal an end to the Water Works. The

Schuylkill had become polluted by runoff from upstream coal mines and dairy farms.

Five new pumping stations with sand filtration beds to remove waterborne impurities were placed in operation near the turn of the century. Fairmount, hugging the river and hemmed in by steep rock outcroppings, didn't have room for the beds.

It closed its doors in 1909, having supplied the city with water for 94 years.

But that wasn't the end. Two years later it reopened as the Philadelphia Aquarium. Sea lions and seals splashed in the forebay. Fish tanks lined the walls of the mill house. The aquarium closed in 1962, but not before a debutante named Trout chose the site for her coming out ball.



The Schuylkill was first tapped as a source of water for Philadelphia in the early 1800s. In the beginning, two small pumps forced the water through a network of hollow spruce and pine

A bit of history brought to you by the Delaware River Basin Commission ([www.drbc.net](http://www.drbc.net)).